Labor Day and the War on Workers

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ABSTRACT

We celebrate Labor Day every year with barbecues and picnics, rarely remembering that the holiday was born in the midst of tremendous labor struggles to improve working conditions. In the last century, 16-hour workdays and 6- and 7-day workweeks led to terribly high injury rates in the nation's mines and mills. Thousands upon thousands of workers died, caught in the grinding machinery of our growing industries.

Today, despite improvements, thousands of workers still die in what has been described as a form of war on the American workforce. This commentary reminds us of the historical toll in lives and limbs that workers have paid to provide us with our modern prosperity. It also reminds us that the continuing toll is far too high and that workers who died and continue to die in order to produce our wealth deserve to be remembered and honored on this national holiday. (*Am J Public Health.* 1999;89:1319–1321)

Thousands of wage earners, men, women and children, [are] caught in the machinery of our record breaking production and turned out cripples. Other thousands are killed outright. How many there are none can say exactly, for we [are] too busy . . . to count the dead.

Arthur B. Reeve[1(p791)]

For most Americans, Labor Day is a holiday that brings to mind barbecues and the end of summer. Yet, the history of Labor Day is closely linked to the various struggles of 19th- and 20th-century workers to improve conditions of work and protect themselves from the fatigue and exhaustion that generally led to extraordinarily high rates of accidents and death. In fact, the struggles by American workers for holidays can be understood as part of a broader struggle over hours, wages, accidents, and disease in the American workplace.

The Toll of Injuries on American Workers

Placed as it was between the Independence Day break on July 4 and Thanksgiving in November, Labor Day was a necessary break from the tedium, the speedups, and the exhausting nature of work in dangerous and poorly lit workplaces. America's mines, mills, and factories of a century ago were among the most dangerous in the world. In mining, for instance, England, Germany, and France experienced death rates of less than 1.5 per 1000 workers during the first years of this century. In the United States, more than 3 miners in every thousand could expect to die while working in a mine in any given year.[1(p791)] From 1905 to 1909, 85 coal mine disasters resulted in the loss of 2640 lives, and more than 23% of all coal miners' deaths were due to accidents. In fact, in the early part of the 20th century, approximately 10% of all deaths among US working people were due to some form of accident. Falls, cave-ins, transportation mishaps, burns, poisonings, and the like killed workers at an extraordinary rate.

Frederick Hoffman, an actuary for the Prudential Life Insurance Company, estimated that in 1913 over 25 000 workers died from accidents on the job and another 700 000 serious injuries occurred in a workforce of 38 million men and women. He further estimated that 9.4% of all working-class deaths were a result of occupational injuries.[2(p37)] One journal editorialized that "it is becoming as perilous to live in the United States as to participate in actual warfare."[3(p359)]

The struggles of American workers for safer conditions certainly improved the conditions of work in the United States in the coming decades. Workers' compensation, safety and health committees in American unions, management reforms, and the like reduced the number of lost days due to injuries and deaths on the job. The average number of disabling injuries declined from 24.2 per million man-hours worked in 1926 to 12 per million in 1956.[4]

Still, work in the United States remained terribly dangerous. In the midst of World War II, it was estimated that more workers lost their lives on America's assembly lines than lost their lives on the battlefield. By 1970, when the OSHAct[5] established the Occupational Safety and Health Administration (OSHA) in the Department of Labor and the National Institute of Occupational Safety and Health (NIOSH) in the National Institutes of Health, industrial accidents continued to haunt the workforce. Today, industrial accidents involving machinery, construction, forestry, mining, transportation, and other white- and blue-collar occupations kill about 20 American workers every day, according to the Census of Fatal Injuries of the Bureau of Labor Statistics. Among the more than 34 000 serious but nonfatal injuries "resulting from workers being caught in machinery" every year from 1992 through 1996, there were nearly 5000 amputations.[6(p35)]

Except for the occasional mine disaster or the explosion of the Ford Motor Company plant in Dearborn, Mich, on February 1, 1999, we are largely shielded from the extraordinary cost in human lives that accompanies our modern prosperity. Few newspapers, magazines, or television or radio stations report the daily accidents that cost workers their lives or maim them forever. We as a nation are barely aware of the problem, for

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we lack even the most basic mechanisms for recording injuries. In 1991, the Bureau of Labor Statistics established the Census of Fatal Injuries to try to address the outrage of a century of faulty statistics that have depended on self-reporting by employers and a wildly uneven and inefficient workers' compensation system.

The Unknown Toll of Disease

Occupational injuries remain a horrendous problem, but diseases linked to industrial production are more insidious and even more difficult to quantify. Since they can occur years—often decades—after exposure, we have only the crudest understanding of the pain and suffering they inflict on American workers and their cost in human life. Philip Landrigan has estimated that approximately 50 000 cancer cases per year are produced by workplace air toxins alone.[7(p54)] Because federal agencies are unable to collect accurate data, however, we have grossly inadequate statistics. In 1912, the Journal editorialized that

> the actual number of workmen killed and injured annually in the United States is not definitely known, due to lack of coordination in statistical departments of the various states. The best authorities, however, on data available have estimated our fatalities of from 40 000 to 45 000 annually and our nonfatal accidents as producing an annual loss of 200 000 000 working days."[8(p1251)]

Today, the same abysmal state of affairs prevails. In a recent article, Dino Drudi of the Bureau of Labor Statistics traced the long and tortured history of statistics gathering and noted that we are still modifying and correcting the means by which we estimate fatalities from accidents and disease.[9] As Martin Cherniack, Linda Rosenstock, and Marc Cullen stated in the *New England Journal of Medicine*, "case definitions have not yet been agreed on for most common conditions [and] strategies and resources to develop reporting schemes remain severely limited."[10(p54)]

Unable to collect accurate data on the true extent of industry-induced disease, we have grossly inadequate statistics. For example, pneumoconioses—dust-induced diseases of the lungs—are among the oldest documented occupational diseases. Silicosis, asbestosis, byssinosis, and black lung have afflicted hundreds of thousands of miners, metalworkers, sandblasters, construction workers, foundry workers, and steelworkers over the course of this century.[11] Still, we only guess at the true dimensions of the problem. NIOSH estimates that between 1968 and 1992, there were over 100 000 deaths in the United States in which pneumoconiosis was a major factor.[12(p2)]

The problem is partly definitional: how do we define occupational diseases, especially those that take decades to develop, generally long after a worker has left the place of exposure? The problem also, however, is structural: whom should we depend on to gather the data on diseases? Who should be required to report occupationally related diseases once they are identified—doctors? Hospitals? Insurers? Employers?

Further, as Chris Moore and Matt Gillen of OSHA and the Environmental Protection Agency (EPA) pointed out at a recent conference on the relationship between occupational and environmental health, OSHA is drastically underfunded, with a budget of merely $353 million.[13] Of 2221 full-time OSHA employees, only 40 work on workplace health issues.[13] Fewer than 1.5% of American workplaces are inspected in any given year, and there were only 416 inspections for exposure to asbestos and lead poisoning.[13] It is clear that at the present level of funding, OSHA cannot estimate disease rates, much less fulfill its mandate under the OSHAct that "no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure . . . for the period of his working life."[5]

The Workplace and the Environment

Labor Day has become everyone's holiday. Likewise, it is worthwhile remembering that diseases once understood as occupational actually affect us all. Lead poisoning, defined as a disease of painters and smelter workers in the 19th century, emerged as a threat to children and other residents of large cities who ingested paint chips or inhaled lead dust from chalking paint or from the exhaust of automobiles. Asbestos-related disease, once thought to be a danger only to asbestos miners or fabricators, has been redefined as a broader environmental danger threatening children and homemakers as well.

In part, these developments are a product of a historical transformation in our perceptions and understanding of the impact of industrial production on human health. Since at least the 1930s, there has been an increased awareness of the effect on health of low-level exposures over long spans of time. Parallel to this has been an explosion in the production of chemicals and toxic substances, and, particularly since the end of World War II, Americans have been brought into contact with a vast array of natural and synthetic substances that have been manufactured and used in industrial processes. The expansion of the plastics industry, the automobile industry, and the chemical industry has been lauded as the basis for Americans' economic dominance in the postwar world. Hence, in the words of a representative of Ethyl Corp, chemical additives were a virtual "gift of God," despite possible negative health effects.[14]

In retrospect, however, we can see that this "progress" was gained at an enormous social cost that we are just beginning to decipher. Since the publication of Rachel Carson's *Silent Spring*, public health officials, scientists, engineers, government regulators, insurance companies, and industry, labor, and environmental activists have developed different—often contentious—perspectives about the "value" of the basic ingredients of urbanization and American industrial success.

Until the early 1970s, the social and intellectual roots of the environmental and occupational health movements were essentially distinct: occupational health issues were seen as of interest to workers and some of their unions, isolated behind the gates of the factory, in the cauldron of American industrial production. OSHA and NIOSH, both created in the early 1970s, rarely acknowledged their jurisdiction over environmental dangers.

Similarly, the environmental movement was still largely a middle-class alliance of individuals interested in protecting the natural environment from the impact of the cities and the very factories that were killing workers. Earth Day, first celebrated in 1970, hardly acknowledged industrial disease as a concern and instead bemoaned the effects of industrial pollution—in the form of soapsuds and nitrate pollution in streams and ponds—on fish and plant life. The EPA, also founded in 1970, was institutionally apart from OSHA and NIOSH and catered to different political and social constituencies.

Merging of Occupational and Environmental Health

Public health and medical practitioners have given middle-class Americans a false sense of control over poisons produced in modern industries by explicitly defining victims primarily as industrial workers. We have sometimes created false divisions between those who work in industrial plants and most middle-class families, whose exposure to toxins occurs outside the factory walls.

In recent decades, however, many boundaries that allowed Americans to feel safe have broken down, as public perceptions of risk have extended beyond the borders of the fac-

tory and their communities. Today, white-collar workers worry that video display terminals, computer keyboards, and even photocopy machines pose risks to their health. Further, as communities discover toxic waste dumps, polychlorinated biphenyls (PCBs) in their rivers, and acid rain destroying their forests, what were once personal health problems for working-class families and communities have become public and environmental health issues as well. The emergence of the environmental justice movement, which has focused attention on the targeting of poor communities—most often communities of color—as sites for incineration, burial of toxic waste, or construction of plastics and chemical plants, has raised the discussion to a new plane.

Whereas the early 1970s witnessed the growth of an environmental movement that focused on the impact of industrial pollution on the ecosystem and ecology, by the late 1970s many had shifted their focus to pollution's impact on human health. This allowed a joining of concerns among segments of the environmental movement and those professionals and working groups worried about occupational disease. Through negotiation and contention, different interest groups' perspectives shaped the medical, scientific, and technical definitions of disease, the means of protection, and the responsibility for risk.

The mid- to late 1970s marked an important moment in our national consciousness and our understanding of the price we paid for post–World War II industrial, nuclear, and economic dominance. Popular movies of the late 1970s such as *Silkwood* with Meryl Streep and *The China Syndrome* with Jane Fonda and Michael Douglas, both produced at a critical juncture in American political and environmental history, raised public awareness of the relationship between the workplace and the environment. The Silkwood case (in which a nuclear processing plant worker who was investigating radiation exposure died in a suspicious automobile accident while going to a meeting with an investigative reporter) emerged a decade after Rachel Carson's *Silent Spring,* at the same moment that Love Canal, Three Mile Island, and a host of other actual and potential disasters came to light. For many, Silkwood seemed to justify suspicions regarding the role of industry, nuclear power, and the "military-industrial complex" in distorting priorities and actually undermining the American political process.

Whether accurate or not, such suspicions signified national fears of industrial power, industrial malfeasance, science, and nuclear energy—all hallmarks of postwar American power. Industrial and environmental threats from radiation and nuclear energy, smog and air pollution from heavy industry in urban environments, toxic dumps, asbestosis, and pesticides are still topics of broad public interest. Most recently, the best-selling novel and movie *A Civil Action* reminded all Americans of the intimate connection between the workplace and our environment.

For much of the 20th century, there has been muted debate about the public health consequences of thousands of substances that were introduced as the basis for the consumer economy. In the post–World War II years, the new environmental movement was fundamentally different and more complex than the earlier, predominantly conservation movement. All of these factors have affected the way Americans understand the relationship between industry, human health, and the environment.

That is the significance of Labor Day: it reminds us of this conjoining of modern environmental and occupational politics and history. The continually emerging links between industrial products and a variety of cancers have further complicated our understanding of the association between workers' diseases and those of the general public. We know that there is a cancer epidemic in the United States, but because workers and the broad public are exposed to carcinogens on the job as well as at home, it is extremely difficult, if not impossible, to arrive at accurate statistics regarding occupationally caused cancers. Similarly, our inability to account for the synergistic effects of a variety of toxins has further undermined our ability to assign risk as well as culpability. In a sense, our traditional mechanisms for remedying injuries and insults—workers' compensation and liability suits—have proven problematic when used to address diseases.

Throughout the 20th century, observers of the American industrial scene have likened the damage to working-class people as a type of war. In the early years of the century, it was estimated that industrialists sent "to the hospital or the graveyard one worker every minute of the year."[1(p807)] Certainly, fatal injuries have been substantially reduced. Today, approximately 6500 workers per year, or about 20 per day, are killed on the job, a significant—if inadequate—improvement from the 80 or so who died every day a century ago.

Still, diseases caused by exposure to industrial toxins claim an unknown toll from American families. Twenty-five years ago, Jeanne Stellman and Susan Daum described the impact of these chemicals:

> Each day, millions of workers in America enter a battlefield, but they fight no foreign enemy and conquer no lands. . . . The war they are fighting is against the poisonous chemicals they work with and the working conditions that place serious mental and physical stress upon them. The battlefield is the American workplace, and the casualties of this war are higher than those of any other in the nation's history.[15]

As we return to work after Labor Day, it is worth remembering the war that the workforce has been subjected to, yesterday and today. □

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